

## Contents Volume 73, 1988/1989

### Research Papers

A samarium-neodymium isotopic survey of modern river sediments from northern Britain E.W. Mearns (Oslo, Norway) .....	1
Neodymium and strontium isotopic constraints on the origin of the peraluminous granitoids of the South Mountain batholith, Nova Scotia, Canada D.B. Clarke (Halifax, N.S., Canada), A.N. Halliday (Ann Arbor, Mich., U.S.A.) and P.J. Hamilton (Glasgow, Great Britain) .....	15
Thermal annealing of fission tracks in apatite, 3. Variable temperature behaviour I.R. Duddy, P.F. Green (Parkville, Vic., Australia) and G.M. Laslett (Clayton, Vic., Australia) .....	25
Thermolumineszenz-Datierung an Loss-Paläoboden-Sequenzen von Nieder-, Mittel- und Oberrhein/ Bundesrepublik Deutschland (Thermoluminescence dating of loess-paleosol sequences in the Lower Rhine, Middle Rhine and Upper Rhine area, Federal Republic of Germany) L. Zöller (Heidelberg, Bundesrepublik Deutschland), H. Stremme (Kiel, Bundesrepublik Deutschland) und G.A. Wagner (Heidelberg, Bundesrepublik Deutschland) .....	39
Organic and inorganic $^{14}\text{C}$ concentrations in the sediments of Lake Kinneret and the Dead Sea (Israel) and the factors which control them Mariana Stiller, I. Carmi and A. Kaufman (Rehovot, Israel) .....	63
$^{13}\text{C}/^{12}\text{C}$ fractionation during the chemical absorption of $\text{CO}_2$ gas by the $\text{NH}_3\text{-NH}_4\text{Cl}$ buffer E. Usdowski and J. Hoefs (Göttingen, Federal Republic of Germany) .....	79
$\delta^{13}\text{C}$ -values of dog bones reveal the nature of changes in man's food resources at the Mesolithic-Neolithic transition, Denmark N. Noe-Nygaard (Copenhagen, Denmark) .....	87
Carbon and oxygen isotopic studies of the chalk reservoir in the Skjold Oilfield, Danish North Sea: Implications for diagenesis J. Jensenius, B. Buchardt, N.O. Jørgensen and S. Pedersen (Copenhagen, Denmark) .....	97
Sr isotopic systematics in volcanic rocks from the Island of Stromboli, Italy (Aeolian Arc) L. Francalanci (Florence, Italy), M. Barbieri (Rome, Italy), P. Manetti (Florence, Italy), A. Peccerillo (Messina, Italy) and L. Tolomeo (Rome, Italy) .....	109
Disturbed U-Th-Pb systematics of young zircons and uranophorites: the case of the Miocene Aegean granitoids (Greece) F. Henjes-Kunst, R. Altherr (Karlsruhe, Federal Republic of Germany), H. Kreuzer (Hannover, Federal Republic of Germany) and B.T. Hansen (Münster, Federal Republic of Germany) .....	125
Separation of Pb from young zircons by single-bead ion exchange W.I. Manton (Johannesburg, South Africa) .....	147
Hercynian/Alleghanian overprinting of an Acadian terrane: $^{40}\text{Ar}/^{39}\text{Ar}$ studies in the Meguma zone, Nova Scotia, Canada G.K. Muecke, P. Elias and P.H. Reynolds (Halifax, N.S., Canada) .....	153
Fission-track geochronology, tectonics and structure of the Transantarctic Mountains in northern Victoria Land, Antarctica P.G. Fitzgerald and A.J.W. Gleadow (Parkville, Vic., Australia) .....	169
Optimal conditions for the reduction of water to hydrogen by zinc for mass spectrometric analysis of the deuterium content A. Tanweer, G. Hut (Vienna, Austria) and J.O. Burgman (Uppsala, Sweden) .....	199
Sulfur isotope effects associated with oxidation of sulfide by $\text{O}_2$ in aqueous solution B. Fry, W. Ruf, H. Gest and J.M. Hayes (Bloomington, Ind., U.S.A.) .....	205
Intertidal barnacles — Assessment of their use as paleo-environment indicators using Mg, Sr, $^{18}\text{O}/^{16}\text{O}$ and $^{13}\text{C}/^{12}\text{C}$ variations	

H.S. Smith, M. Delafontaine (Cape Town, South Africa) and B.W. Flemming (Wilhelmshaven, Federal Republic of Germany) .....	211
Isotopic and elemental geochemistry of marine invertebrates from the Late Quaternary Fort Langley Formation and Capilano Sediments, southwestern British Columbia, Canada	
L.I. Wassenaar (Waterloo, Ont., Canada), U. Brand and J. Terasmae (St. Catherines, Ont., Canada) .....	221
Thermal neutron fluence determination for fission-track dating with metal activation monitors: A re-investigation	
P. Van den haute, R. Jonckheere and F. De Corte (Gent, Belgium) .....	233
$^{40}\text{Ar}$ - $^{39}\text{Ar}$ laser probe multi-dating inside single biotites of a Variscan orthogneiss (Pinet, Massif Central, France)	
H. Maluski and P. Monié (Montpellier, France) .....	245
<i>Discussion</i>	
Ar diffusion in partially outgassed alkali feldspars: Insights from $^{40}\text{Ar}/^{39}\text{Ar}$ analysis — Comments	
I.M. Villa (Pisa, Italy) .....	265
Ar diffusion in partially outgassed alkali feldspars: Insights from $^{40}\text{Ar}/^{39}\text{Ar}$ analysis — Reply	
P.K. Zeitler (Bethlehem, Pa., U.S.A.) .....	268
<i>Book Review</i>	
<i>Technetium in the Environment</i> , by G. Desmet and C. Myttenaere (Editors) — R.W. Kistler .....	271
<i>Editorial</i> , by G. Faure .....	273
<i>Obituary</i>	
In memoriam Hugh Leonard Allsopp (1929-1986), by W.I. Manton .....	275
<i>Research Papers</i>	
Use of cosmogenic $^{10}\text{Be}$ and $^{26}\text{Al}$ in phillipsite for the dating of marine sediments in the South Pacific Ocean	
P. Sharma (Philadelphia, Pa., U.S.A.), T.M. Church (Newark, Del., U.S.A.) and M. Bernat (Nice, France) .....	279
Statistical analysis of Rb-Sr isotope data by the "bootstrap" method	
F. Kalsbeek and M. Hansen (Copenhagen, Denmark) .....	289
Strontium isotopic evidence for soil-solution interactions during evaporation experiments	
Catherine Thellier and N. Clauer (Strasbourg, France) .....	299
Thermoluminescence dating of loess-paleosol sequences in the Carpathian Basin (East-Central Europe): A suggestion for a revised chronology	
A.K. Singhvi (Ahmedabad, India, and Heidelberg, Federal Republic of Germany), A. Bronger (Kiel, Federal Republic of Germany), W. Sauer (Heidelberg, Federal Republic of Germany) and R.K. Pant (Ahmedabad, India) .....	307
Carbon isotopic studies of metasedimentary and igneous rocks at the Babbitt Cu-Ni deposit, Duluth Complex, Minnesota, U.S.A.	
E.M. Ripley and N.I. Taib (Bloomington, Ind., U.S.A.) .....	319
D/H study of the magnetite-series granitic plutons from the Kitakami district, northeast Japan	
Y. Kuroda, T. Yamada, O. Takano (Matsumoto, Japan) and S. Matsuo (Tokyo, Japan) .....	343
<i>Book Review</i>	
<i>Handbook of Environmental Isotope Geochemistry, Vol. 2. The Terrestrial Environment, B</i> , by P. Fritz and J.Ch. Fontes	
(Editors) — M. Kastner .....	353
<i>Contents Volume 73, 1988/1989</i> .....	355